

COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF ENVIRONMENTAL PROTECTION

310 CMR 7.00 AIR POLLUTION CONTROL REGULATIONS

310 CMR 7.37 MB HIGH OCCUPANCY VEHICLE LANES

7.37: MB High Occupancy Vehicle Lanes

(1) Applicability. 310 CMR 7.37 applies to the Massachusetts Executive Office of Transportation and Construction, hereafter referred to as EOTC, and the Massachusetts Turnpike Authority (MTA).

(2) High Occupancy Vehicle Lanes.

(a) By December 31, 1991, EOTC shall construct and make available for public use, high occupancy vehicle lanes on the roadway segments described as follows:

1. The existing southbound high occupancy vehicle lane on Interstate-93, north of the southern bank of the Charles River, shall be extended toward Interstate-95/Route 128 to the northernmost point appropriate to maximize use of the lane. Said extension shall be subject to the following conditions:

a. Establishment of a high occupancy vehicle lanes shall not be accomplished by the addition of a new lane or lanes to Interstate-93.

b. Prior to the lane opening, EOTC shall submit to the Department information relating to the length of the lane including a demonstration that the lane has been extended northward to the most appropriate geographical location.

2. The final design of the Charles River Crossing portion of the Central Artery/Third Harbor Tunnel project on Interstate-93 shall include a high occupancy vehicle lane on the southbound side of Interstate-93 extending down the exit ramp to Nashua Street with a head-of-queue enforcement point at the intersection of the Interstate-93 ramp and Nashua Street. This high occupancy vehicle lane shall be made available for public use at the time the Charles River Crossing of the Central Artery/Third Harbor Tunnel project is opened for public use.

(b) By May 31, 1993, EOTC shall construct and make available for public use high occupancy vehicle lanes northbound and southbound on Interstate-93 beginning at the intersection of Interstate-93 with Interstate-90 and extending to a

point immediately north of the intersection of Interstate-93 and Route 3. Said high occupancy vehicle lanes shall be established subject to the following conditions:

1. High occupancy vehicle lanes on this roadway segment shall be implemented when the roadway threshold standards established in compliance with the requirements of 310 CMR 7.37(3) have been violated for three consecutive months in accordance with provisions of 310 CMR 7.36(5)(b).
2. High occupancy vehicle lanes on this roadway segment shall be subject to earlier implementation if EOTC determines that roadway threshold standards established pursuant to 310 CMR 7.37(5)(b).

(3) Establishment of Roadway Threshold Standards.

(a) Before December 31, 1991, EOTC shall establish roadway threshold standards for each of the following roadway segments:

1. Interstate-93 northbound and southbound between Interstate-90 and Route 3 in Braintree.
2. Interstate-93 northbound between the Charles River Crossing and Interstate-95.

(b) Before December 31, 1991, the Massachusetts Turnpike Authority shall establish roadway threshold standards for the following roadway segment:

1. Interstate-90 eastbound and westbound between Interstate-93 and Interstate-95.

(c) Before December 31, 1991, EOTC and the Massachusetts Turnpike Authority shall each collect such information as is necessary to identify and document baseline roadway conditions for the roadway segments identified in 310 CMR 7.37(3)(a) and (b).

(d) Roadway threshold standards shall be calculated to represent an average weekday peak hour trip time increase of 35 percent from baseline roadway conditions.

(e) Before January 1, 1992, EOTC and the Massachusetts Turnpike Authority shall each submit to the Department a report which documents the baseline roadway conditions and the roadway threshold standards for the roadway segments identified in 310 CMR 7.37(3)(a) and (b). Said report shall contain traffic monitoring data and trip time records as may be appropriate to support the roadway threshold standards as established. Within 60 days of receipt of a

complete report, the Department shall review the report and shall take such action on the report as it may deem appropriate. Any action such shall be in writing. Within 90 days of receipt of a complete report the Department shall file a copy of the report and Department action with U.S. EPA, Region I.

(4) Feasibility studies.

(a) Before December 31, 1992, EOTC shall, in consultation with the Massachusetts Department of Public Works and the Massachusetts Turnpike Authority and after an opportunity for public review and comment, submit to the Department a study of the feasibility of establishing high occupancy vehicle lanes and other high occupancy vehicle incentives for the roadways identified in 310 CMR 7.37(3)(a) and (b).

(b) Feasibility studies required by this section shall identify the impact of high occupancy vehicle lane installation on general-purpose traffic flow and mobile source emissions for each roadway segment in addition to an assessment of the appropriate engineering issues.

(5) Roadway Monitoring / Addition of High Occupancy Vehicle Lanes.

(a) Beginning January 1, 1992, EOTC and the Massachusetts Turnpike Authority shall monitor traffic volumes and trip times on the roadway segments identified in 7.37(3)(a) and (b) monthly. All records and data shall be maintained for a period of five years and shall be readily available for Department inspection.

(b) Should roadway threshold standards established pursuant to 310 CMR 7.37(3) be violated for three consecutive months, EOTC shall notify the Department of the violation, said notification shall include identification of the roadway which has exceeded roadway threshold standards which requires implementation of high occupancy vehicle lanes, and a schedule for implementing high occupancy vehicle lanes for the applicable roadway segment.

(c) The addition of high occupancy vehicle lanes to roadways pursuant to 310 CMR 7.37(5)(b) shall be subject to the following conditions:

1. Addition of high occupancy vehicle lanes on Interstate-93 northbound and southbound between Interstate-90 to Route 3, shall extend onto Route 3 if found feasible through, the study conducted pursuant to 310 CMR 7.37(4). Should implementation of high occupancy vehicle facilities on this section of Interstate-93 or Route 3 require addition of a new lane or lanes, any such high occupancy vehicle lane shall be dedicated for exclusive high occupancy vehicle use between the hours of 6 am to 10 am and 3pm to 7pm, at a minimum.

2. Addition of high occupancy vehicle lanes on Interstate-90 eastbound or Interstate-90 westbound between Interstate-93 and Interstate-95 must first be found feasible through the study conducted pursuant to 310 CMR 7.37(4)(a)1. Implementation of addition of high occupancy vehicle facilities shall not be accomplished by addition of a new lane or lanes to Interstate-90.

3. Addition of high occupancy vehicle lanes on Interstate-93 northbound beginning at the Charles River Crossing and extending north towards Interstate-95 to a point which is appropriate to maximize use of the lane. Incorporation of additional high occupancy vehicle lanes shall not be accomplished by the addition of a new lane or lanes to Interstate-93 in this area.

(d) Beginning January 1, 1992, EOTC and the Massachusetts Turnpike Authority shall provide the Department an annual assessment of the potential for violations of the roadway threshold standards. The assessment shall be based on monitoring information collected pursuant to 310 CMR 7.37(5)(a) and traffic projections using a method which has been agreed to in advance through consultation with the Department. The annual assessment shall, at minimum, forecast when roadway threshold standards will be violated on the roadway segments identified in 310 CMR 7.37(3)(a) and (b) and, if roadway threshold standards have already been violated, identify the time of day and travel conditions which were evident when threshold conditions were violated.

(6) High Occupancy Vehicle Lane Performance Standards.

(a) Within 30 days of implementation of a new high occupancy vehicle lane or expansion of an existing high occupancy vehicle lane, EOTC shall establish written performance standards for high occupancy vehicle lanes on each of the following roadway segments:

1. From a point beginning at the intersection of Interstate-95 and Interstate-93 north of Boston and extending south on Interstate-93 to the Charles River Crossing. Said performance standard shall be established to represent the average peak hour travel time during the period of maximum construction activity of the Central Artery project, which is expected to occur during calendar year 1994.

2. Beginning at the Weymouth Town Line on Route 3, via Interstate-93 to South Station in calendar year 1994. Said performance standard shall be established to represent the average peak hour travel time during the period of maximum construction activity of the Central Artery project, which is expected to occur during calendar year 1994.

3. Beginning at the Weymouth town line on Route 3, via Interstate-93 and

Interstate-90 to the entrance to Logan Airport after Central Artery Construction is complete in the year 2002. Said performance standard shall be established to represent the average peak hour travel time during the period of maximum construction activity of the Central Artery project, which is expect to occur during calendar year 1994.

(b) Within 30 days of implementation of a new high occupancy vehicle lane on Interstate-90, the Massachusetts Turnpike Authority, in consultation with EOTC, shall establish written performance standards for each high occupancy vehicle lane on roadway segments described as follows:

1. From a point beginning at the intersection of Interstate-95 and Interstate-93 north of Boston through the Sumner and Callahan Tunnels to the entrance to Logan Airport after the Central Artery Construction is complete in the year 2002.
2. From a point beginning at the interchange of Interstate-95 and Interstate-90 to South Station during the central Artery Construction period in the year 1994.
3. From a point beginning at the interchange of Interstate-95 and Interstate-90 extending east along Interstate-90 to the entrance to Logan Airport after Central Artery construction is complete in the year 2002.

(c) Within 60 days of the implementation of a new high occupancy vehicle lane or expansion of an existing lane, EOTC shall submit to the Department a report which documents the high occupancy vehicle lane performance standards for the roadway segments identified in 310 CMR 7.37(5)(a). Said report shall contain traffic monitoring data and trip time records as may be appropriate to support the high occupancy vehicle lane performance standard for each roadway segment and shall be subject to review as follows:

1. Within 60 days of receipt of a complete roadway performance standard report, the Department shall review the report and shall take action to either approve or disapprove said proposed report in writing.
2. Within 90 days of receipt of a complete roadway performance standards report the Department shall file a copy of the report and Department action with U.S. EPA, Region I.

(d) Performance standards, as required by this section shall be established to reflect roadway performance at a level the Department has determined is reasonable. This level shall be defined as the range of roadway performance between Level of Service B and a condition of under-utilization. A high occupancy vehicle lane shall be considered under-utilized if traffic volumes fall

below 400 vehicles per hour for a high occupancy vehicle lane with a traffic flow direction which remains constant or 200 vehicles per hour for a high occupancy vehicle lane where the direction of traffic flow changes to match the predominant peak hour traffic flow direction.

(7) Continuous Attainment of Performance Standards.

(a) Beginning January 1, 1992, EOTC and the Massachusetts Turnpike Authority shall monitor high occupancy vehicle lane performance on the lanes for which they are responsible on a continuous basis to ensure that high occupancy vehicle operations and opportunities are maximized. Trip times shall be measured at least quarterly. Measurements shall be taken on five to seven weekdays over two consecutive weeks within each quarter. A minimum of three time runs shall be made in each direction for each high occupancy vehicle lane roadway segment on each of the sample days.

(b) EOTC and the Massachusetts Turnpike Authority shall use all appropriate measures on a continual basis to maintain compliance with the high occupancy vehicle lane performance standards.

(c) Should high occupancy vehicle lane performance standards for a given roadway segment be violated for each time run conducted in accordance with the provisions of 310 CMR 7.37(6)(a), the agency responsible for the operation of the lane, either EOTC or the Massachusetts Turnpike Authority, shall file a written report describing the violations to the Department within ten days following the end of month in which the violation was detected. This report shall include a commitment by the responsible agency to take whatever measures are necessary to return the high occupancy vehicle lane to compliance with the performance standards, including but not limited to changes in high occupancy vehicle eligibility or high occupancy vehicle facility metering and measures to increase the use of busses and/or car and van-pools.

(8) Substitute High Occupancy Vehicle Projects.

(a) Based on the feasibility studies conducted pursuant to 310 CMR 7.37(4)(a), if EOTC can demonstrate to the Department that a specific project listed in 310 CMR 7.37(3)(a) and (b) is infeasible due to associated adverse engineering, environmental or economic impacts, an alternative project may be substituted in the following manner:

1. EOTC must petition the Department to accept a substitution project, said petition to include a demonstration that the alternative project achieves equal or greater emission reductions of NMHC, CO and NO_x and would provide a greater improvement in air quality for CO and NO_x in the area where the required high occupancy vehicle lane was targeted, both short and long term.

2. Within 60 days of receipt of a complete petition and demonstration for project substitution, the Department shall review the proposed substitution and shall take action on the proposed substitution in writing.

3. Within 90 days of receipt of a complete petition and demonstration for project substitution, the Department shall file a copy of the petition, supporting documentation and Department action with U.S. EPA, Region I.

(9) High Occupancy Vehicle Studies and Further Actions.

(a) The Massachusetts Turnpike Authority shall take all steps necessary to enhance and expand programs to support high occupancy vehicle and shall undertake to complete and submit to the Department the following feasibility studies no later than December 31, 1992:

1. A study to examine the feasibility of full-scale high occupancy vehicle lanes and other high occupancy vehicle facilities and mechanisms on Interstate-90 between Interstate-95 and Interstate-90 in Boston.

2. A study on the feasibility of implementing a program of special high occupancy vehicle toll booths and full head-of-queue privileges on Interstate-90 including consideration of establishing specially demarcated lanes leading to high occupancy vehicle toll booths wherever found practical at appropriate turnpike interchanges.

3. A study on the feasibility of installing electronic identification systems to facilitate high occupancy vehicle flow through turnpike toll booths.

(10) High Occupancy Vehicle Promotion and Enforcement.

(a) Before December 31, 1991 EOTC and the Massachusetts Turnpike Authority shall each prepare and submit to the Department a plan defining the enforcement program which shall be put into operation to enforce the use of the high occupancy vehicle system. These program submittals shall include a commitment to implementation of the enforcement program as defined therein. Within 30 days of receiving the enforcement program plans, the Department shall review and make recommendations regarding the plans, said recommendations shall be incorporated by EOTC and the Massachusetts Turnpike Authority into the final Enforcement program plan for each agency.

(b) By April 1, 1992 EOTC and the Massachusetts Turnpike Authority shall prepare and submit to the Department a plan for a program designed to promote high occupancy vehicle use. Said plan shall be based on a comprehensive review of techniques used to manage or promote high occupancy vehicle use in other locations throughout the United States and Canada. EOTC and the Massachusetts

Turnpike Authority shall, in said program, commit to implementation of selected measures to promote use of the high occupancy vehicle system of each agency.

(11) High Occupancy Vehicle Expansion to the Local Roadway Network.

(a) EOTC shall encourage the City of Boston to incorporate high occupancy vehicle facilities, including special bus and/or taxi lanes into the design, construction and reconstruction of city streets wherever feasible.

(b) EOTC shall work with the Massachusetts Port Authority to conduct studies of high occupancy vehicle needs at Logan Airport.